**COMMONWEALTH OF MASSACHUSETTS**
**DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

**FITCHBURG GAS AND ELECTRIC LIGHT COMPANY**
**2003 INTEGRATED GAS RESOURCE PLAN**
**Docket No. D.T.E. 03-52**

**COMPANY'S RESPONSES TO THE DEPARTMENT'S**
**FIRST SET OF INFORMATION REQUESTS**

DTE-1-10 The Company used heating degree-days ('HDD") to normalize sales (see page 16 of the Company's filing). In this regard, please:

(a) define heating degree-days ("HDD") and effective degree-days ("EDD"). Please, emphasize the differences between those two temperature measures and how those differences applied to Fitchburg service territory;
(b) justify the use of HDD in the normalization of sales;
(c) show graphically, using line graphs, and also in a tabular form, the average monthly minimum, the average monthly maximum average HDD and EDD for the Company's service territory and for the past 20 years.

**Company Response:**

(a) Heating degree days ("HDD") are calculated by subtracting the average of the daily high and daily low temperature from a base of 65 degrees. HDD equal zero when the average daily temperature is above 65 degrees. Effective degree days ("EDD") are similarly calculated, but factor the impact of wind chill effect on the temperature data, typically yielding a value higher than HDD, which are calculated solely on the basis of temperature.

(b) FG&E utilizes HDD data, rather than EDD data, to weather-normalize historic sales and throughput data as part of its long term planning analyses. FG&E uses HDD data for two reasons. First, FG&E has a limited archive of historical EDD data. FG&E has tracked EDD data only since January 2000 and therefore has a three year history. The normalization process requires a substantial history in order to establish appropriate "normal" values. Second, HDD and EDD data are so correlated that switching from HDD to EDD would not change the results of any analyses that currently uses HDD data. For the three year period of January 2000 through December 2002, HDD and EDD in FG&E service territory are 99.98% correlated.

(c) As mentioned in response to (b) above, FG&E has only tracked EDD data since January 2000. Chart DTE 1-10 (c) and Table DTE 1-10 (c) below show graphically and in tabular form the average monthly minimum, the average monthly maximum, and the average monthly value of HDD and EDD for the Company's service territory for the past 3 years.

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Chart DTE 1-10 (c)

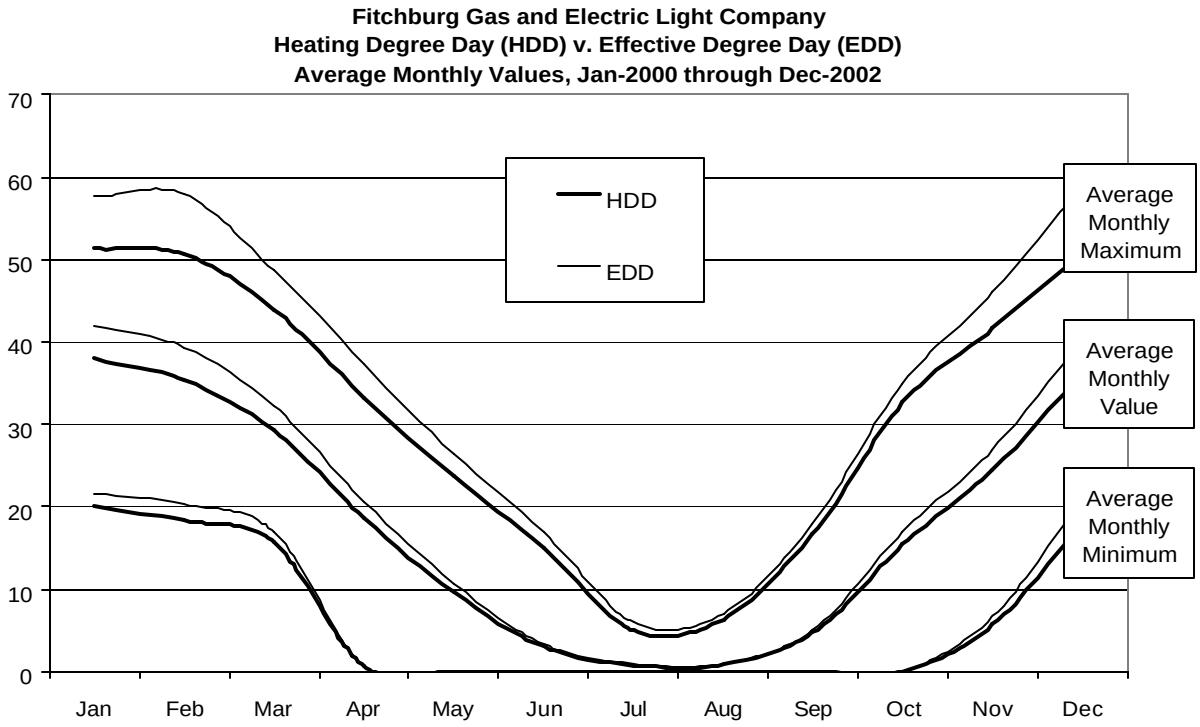

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Table DTE 1-10 (c)

Fitchburg Gas and Electrric Light Company
Heating Degree Days (HDD) v. Effective Degree Days (EDD)
Average Monthly Values, Jan-2000 through Dec-2002

| | Average Monthly Maximum | | Average Monthly Value | | Average Monthly Minimum | |
|---|---|---|---|---|---|---|
| | HDD | EDD | HDD | EDD | HDD | EDD |
| Jan | 51.3 | 57.7 | 38.0 | 41.9 | 20.0 | 21.7 |
| Feb | 50.7 | 58.0 | 35.4 | 39.4 | 18.3 | 20.3 |
| Mar | 44.0 | 48.7 | 29.2 | 32.3 | 15.7 | 17.0 |
| Apr | 33.3 | 37.3 | 18.7 | 20.6 | 0.7 | 0.7 |
| May | 23.7 | 26.3 | 9.6 | 10.7 | 0.0 | 0.0 |
| Jun | 15.0 | 17.0 | 3.0 | 3.3 | 0.0 | 0.0 |
| Jul | 5.0 | 6.0 | 0.8 | 0.9 | 0.0 | 0.0 |
| Aug | 6.3 | 7.0 | 0.8 | 0.9 | 0.0 | 0.0 |
| Sep | 16.7 | 18.0 | 4.7 | 5.0 | 0.0 | 0.0 |
| Oct | 32.7 | 35.0 | 15.4 | 17.0 | 0.0 | 0.0 |
| Nov | 41.7 | 46.0 | 24.5 | 27.0 | 5.7 | 6.7 |
| Dec | 50.7 | 59.0 | 36.2 | 40.3 | 18.0 | 21.0 |

**Person Responsible:** Robert S. Furino